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09/384,082	08/26/1999	FUMIO OTOMO	016910/0451	7360

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EXAMINER

DOROSHENK, ALEXA A

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 02/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/384,082	Applicant(s) OTOMO ET AL.	
	Examiner Alexa A. Doroshenk <i>ASD</i>	Art Unit 1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-10,12-15,33,34,36-42,44-48,50 and 51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-10,12-15,33,34,42 and 46-48 is/are rejected.
- 7) ☒ Claim(s) 36-41,44,45,50 and 51 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 36-41, 44 and 45 are objected to under 37 CFR 1.75(c) as being in improper form because a dependent claim cannot depend upon a canceled claim. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1, 3-6, 10, 12, 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jahnke et al. (USP 5,345,756) in view of Rice (USP 4,571,935).

Regarding claim(s) 1 and 3, Jahnke et al. disclose(s) a similar integrated coal gasification combined cycle power generator, the generator comprising:

a coal gasification system for producing a combustible gas from coal, wherein said gasification system supplies said combustible gas to a gas turbine system (C9/L51-C10/L51);

said gas turbine system comprises a gas turbine for performing expansion work using said combustible gas, wherein said gas turbine supplies exhaust gas to a heat recovery system (C10/L40-51 & C11/L58-63);

said heat recovery system performs heat exchange, wherein said heat recovery system uses said exhaust gas supplied from said gas turbine as a heat source, and

Art Unit: 1764

supplies steam generated in the heat exchange to a steam turbine system (C11/L58-C12/L10);

said steam turbine system performs expansion work (C10/L40-51), said steam turbine system comprising a condenser to condense said steam from said heat recovery system into water, said water being supplied to a heat exchanger in said coal gasification system, where said water is heated to steam (C12/L22-28).

While Jahnke et al. disclose that said steam created in a heat exchanger in said coal gasification system is further heated by removing waste heat in another stage of the generator (C9/L11-20 and C12/L28-40), the reference does not explicitly disclose said another stage being at least one high-temperature section of the gas turbine system which is at a temperature higher than a temperature of said steam from said heat exchanger.

Rice teaches a combined cycle power generator wherein steam generated by steam turbine system is used to cool at least one high-temperature section of the gas turbine system which is at a temperature higher than a temperature of said steam (Abstract and col. 10, lines 56-59) and after cooling said gas turbine, collected and provided to a steam turbine (col. 11, lines 27-31) for the purpose of increasing system efficiency by providing effective cooling to said gas turbine and at the same time allowing for steam re-heating and recycle to the steam turbine system.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use steam condensed by a condenser in steam turbine system and heated to steam in a heat exchanger in coal gasification system, in power generator

Art Unit: 1764

of Jahnke et al., to cool at least one high-temperature section of the gas turbine system which is at a temperature higher than the temperature of said steam, as taught by Rice, for the purpose of increasing system efficiency by providing effective cooling to said gas turbine and at the same time allowing for steam re-heating and recycle to the steam turbine system.

Additionally Rice teaches the power generator wherein:

a higher-temperature steam is produced after cooling said high-temperature section of the gas turbine system with said steam from said heat exchanger, said higher-temperature steam is recovered from said at least one high-temperature section of the gas turbine system and supplied to a steam turbine in said steam turbine system (Abstract); and

said at least one high-temperature section of the gas turbine is at least one of said gas turbine and a gas turbine combustor (Abstract).

Regarding claim(s) 4, Jahnke et al. in view of Rice disclose(s) all of the claim limitations as set forth above. Additionally Jahnke et al. discloses the power generator further comprising:

a gasification substance producing unit (156) in said coal gasification system for producing an oxygen gas (160) and a nitrogen gas (154) from air (155), said gasification substance producing unit (156) supplying said oxygen gas (160) to a coal gasification unit (1) in said coal gasification system;

wherein said coal gasification unit (1) receives said oxygen gas (160) from said gasification substance producing unit (156) and receives coal (7);

Art Unit: 1764

said coal gasification unit (1) burns the coal (7) with the oxygen gas (160) from said gasification substance supplying unit (156), producing said combustible gas and introducing said combustible gas into a cooling unit in said coal gasification system (C9/L51-C10/L51);

said cooling unit cools said combustible gas from said coal gasification unit (1), said cooling unit being in fluid connection with a gas cleanup unit in said coal gasification system (C9/L51-C10/L51); and

said gas cleanup unit removes impurities from said combustible gas (C9/L51-C10/L51).

While Jahnke et al. do not explicitly disclose said coal gasification unit receiving coal from a coal supplying unit, a usage of a coal supplying unit is inherent in the disclosed power generator.

While Jahnke et al. does not explicitly state that the recycled steam stream to the gas turbine is sent through the gas cleanup unit, Jahnke does teach the desire to purify fluids which are to be fed to the gas turbine (col. 9, lines 51-63). It would have been obvious to one of ordinary skill in the art at the time the invention was made to expand this teaching to sending the steam to be used in the gas turbine to also be sent to the cleanup unit.

Regarding claim(s) 5, Jahnke et al. in view of Rice disclose(s) all of the claim(s) limitations as set forth above. Additionally Jahnke et al. discloses the power generator wherein:

wherein said coal supplying unit employs nitrogen gas (C4/L5-18).

Art Unit: 1764

While Jahnke et al. does not explicitly disclose said nitrogen gas employed in said coal supplying unit originating from said gasification substance producing unit, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use at least part of nitrogen gas from said gasification substance producing unit in said coal supplying unit for the purpose of improving system economic by utilizing as a temperature moderator a gas stream which is available as a by-product of disclosed generator.

Regarding claim(s) 6, Jahnke et al. in view of Rice disclose(s) all of the claim(s) limitations as set forth above. Additionally Jahnke et al. discloses the power generator wherein:

the nitrogen gas produced in said gasification substance producing unit is supplied to said gas turbine combustor, said nitrogen gas combined therein with said combustible gas (C11/L33-41).

Regarding claim(s) 10, Jahnke et al. in view of Rice disclose(s) all of the claim(s) limitations as set forth above. Additionally Rice teaches the power generator wherein:

a higher-temperature steam is produced after cooling said at least one high-temperature section of the gas turbine system with said steam from said heat exchanger (Abstract); and

said at least one high-temperature section of the gas turbine is at least one of said gas turbine and a gas turbine combustor (Abstract).

While Rice does not explicitly disclose higher-temperature steam being supplied to a heat recovery system, it would have been obvious to one having ordinary skill in the

Art Unit: 1764

art at the time the invention was made to use at least part of said higher-temperature steam in said heat recovery system for the purpose of improving system economic by utilizing a higher-temperature steam which is available as a by-product of disclosed generator for production of steam which can be used in high pressure steam turbine.

Regarding claim(s) 12, Jahnke et al. in view of Rice disclose(s) all of the claim(s) limitations as set forth above. Additionally Jahnke et al. discloses the power generator further comprising:

a gasification substance producing unit (156) in said coal gasification system for producing an oxygen gas (160) and a nitrogen gas (154) from air (155), said gasification substance producing unit (156) supplying said oxygen gas (160) to a coal gasification unit (1) in said coal gasification system;

wherein said coal gasification unit (1) receives said oxygen gas (160) from said gasification substance producing unit (156) and receives coal (7);

said coal gasification unit (1) burns the coal (7) with the oxygen gas (160) from said gasification substance supplying unit (156), producing said combustible gas and introducing said combustible gas into a cooling unit in said coal gasification system (C9/L51-C10/L51);

said cooling unit cools said combustible gas from said coal gasification unit (1), said cooling unit being in fluid connection with a gas cleanup unit in said coal gasification system (C9/L51-C10/L51); and

said gas cleanup unit removes impurities from said combustible gas (C9/L51-C10/L51).

Art Unit: 1764

While Jahnke et al. does not explicitly disclose said coal gasification unit receiving coal from a coal supplying unit, a usage of a coal supplying unit is inherent in the disclosed power generator.

Regarding claim(s) 13, Jahnke et al. in view of Rice disclose(s) all of the claim(s) limitations as set forth above. Additionally Jahnke et al. discloses the power generator wherein:

wherein said coal supplying unit employs nitrogen gas (C4/L5-18).

While Jahnke et al. does not explicitly disclose said nitrogen gas employed in said coal supplying unit originating from said gasification substance producing unit, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use at least part of nitrogen gas from said gasification substance producing unit in said coal supplying unit for the purpose of improving system economic by utilizing as a temperature moderator a gas stream which is available as a by-product of disclosed generator.

Regarding claim(s) 15, Jahnke et al. in view of Rice disclose(s) all of the claim(s) limitations as set forth above. Additionally Jahnke et al. discloses the power generator wherein:

said higher temperature steam is supplied to said heat recovery system and to said steam turbine (C11/L58-C12/L10).

Art Unit: 1764

3. Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jahnke et al. (USP 5,345,756) in view of Rice (USP 4,571,935), as applied to claim(s) 1, 3-6, 10, 12, 13 and 15 above, and further in view of Perkins et al. (USP 5,160,096).

Regarding claim(s) 7 and 14, Jahnke et al. in view of Rice disclose(s) all of the claim(s) limitations as set forth above, but the reference(s) do/does not disclose gas turbine system comprising an air compressor that supplies air to at least one high-temperature section of the gas turbine system for the purpose of cooling said high-temperature section, producing a higher-temperature air nor said higher-temperature air being recovered after cooling said high-temperature section and supplied to said heat recovery system.

Perkins et al. teaches a gas turbine system comprising at least one air compressor that supplies air to at least one high-temperature section of the gas turbine system for the purpose of cooling said high-temperature section and producing a higher-temperature air (C2/53-61) for the purpose of improving system performance by allowing significant increase in the gas turbine inlet temperature.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use at least one air compressor that supplies air to at least one high-temperature section of the gas turbine system for the purpose of cooling said high-temperature section and producing a higher-temperature air, as taught by Perkins et al., in the power generator of Jahnke et al., for the purpose of improving system performance by allowing significant increase in the gas turbine inlet temperature.

Art Unit: 1764

While Perkins et al. does not explicitly disclose said higher-temperature air being supplied to a heat recovery system, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use at least part of said higher-temperature air in a heat recovery system of Jahnke et al., as Jahnke et al. discloses utilizing hot gas streams available as a by-product of disclosed generator for the purpose of improving system economics (C11/58-63).

4. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jahnke et al. (USP 5,345,756) in view of Rice (USP 4,571,935), as applied to claim(s) 1, 3-6, 10, 12, 13 and 15 above, and further in view of Iwata et al. (USP 5,327,718).

Regarding claim(s) 8-9, Jahnke et al. in view of Rice disclose(s) all of the claim(s) limitations as set forth above, but the reference(s) do/does not disclose power generator further comprising detector for detecting a calorific value of said combustible gas from said gas cleanup unit nor a controller for controlling the flow rate of said combustible gas and/or high pressure air from an air compressor based on said calorific value. Iwata et al. teaches a gas turbine system comprising a detector for detecting a calorific value of combustible gas and a controller for controlling the flow rate of said combustible gas and/or air supplied to combustor based on said calorific value (C3/L32-48) for the purpose of improving combustor combustion efficiency and lowering NOx production (C3/L60-64).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a detector for detecting a calorific value of combustible gas and a controller for controlling the flow rate of said combustible gas and/or air supplied

Art Unit: 1764

to combustor based on said calorific value, as taught by Iwata et al., in the power generator of Jahnke et al., for the purpose of improving combustor combustion efficiency and lowering NOx production.

5. Claims 33, 34, 42, 46 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jahnke et al. (5,345,756) in view of Rice (4,571,935) and further in view of Perkins et al. (5,160,096).

Regarding claims 33 and 46, Jahnke et al. discloses a similar integrated coal gasification combined cycle power generator, the generator comprising:

- a coal gasification system for producing a combustible gas from coal, wherein said gasification system supplies said combustible gas to a gas turbine system (C9/L51-CI 0/L51);
- said gas turbine system comprises a gas turbine for performing expansion work using said combustible gas, wherein said gas turbine supplies exhaust gas to a heat recovery system (C10/L40-51 & C11/L58-63);
- said heat recovery system performs heat exchange, wherein said heat recovery system uses said exhaust gas supplied from said gas turbine as a heat source, and supplies steam generated in the heat exchange to a steam turbine system (CI 1/L58-C12/L1 0);
- said steam turbine system performs expansion work (C10/L40-51), said steam turbine system comprising a condenser to condense said steam from said heat recovery system into water, said water being supplied to a heat exchanger in said coal gasification system, where said water is heated to steam (C12/L22-28).

While Jahnke et al. does disclose that said steam created in a heat exchanger in said coal gasification system is further heated by removing waste heat in another stage of the generator (C9/L1 1-20 and C12/L28-40), the reference does not explicitly disclose said another stage being at least one high-temperature section of the gas turbine system which is at a temperature higher than a temperature of said steam from said heat exchanger.

Rice teaches a combined cycle power generator wherein steam generated by steam turbine system is used to cool at least one high-temperature section of the gas turbine system which is at a temperature higher than a temperature of said steam (Abstract) and after cooling said gas turbine, collected and provided to a steam turbine (col. 11, lines 27-31) for the purpose of increasing system efficiency by providing effective cooling to said gas turbine and at the same time allowing for steam re-heating and recycle to the steam turbine system.

Rice discloses wherein at least one high-temperature section of said gas turbine includes at least one of;

a gas turbine nozzle blade (col. 7, lines 1-7); and
a gas turbine rotor and rotor blade (col. 7, lines 39-41).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use steam condensed by a condenser in steam turbine system and heated to steam in a heat exchanger in coal gasification system, in power generator of Jahnke et al., to cool at least one high-temperature section of the gas turbine system which is at a temperature higher than the temperature of said steam, as taught by Rice,

Art Unit: 1764

for the purpose of increasing system efficiency by providing effective cooling to said gas turbine and at the same time allowing for steam re-heating and recycle to the steam turbine system.

Jahnke et al. in view of Rice disclose(s) all of the claim(s) limitations as set forth above, but the reference(s) do/does not disclose gas turbine system comprising an air compressor that supplies air to at least one high-temperature section of the gas turbine system for the purpose of cooling said high-temperature section, producing a higher-temperature air nor said higher-temperature air being recovered after cooling said high-temperature section and supplied to said heat recovery system.

Perkins et al. teaches a gas turbine system comprising at least one air compressor that supplies air to at least one high-temperature section of the gas turbine system for the purpose of cooling said high-temperature section and producing a higher-temperature air (C2/53-61) for the purpose of improving system performance by allowing significant increase in the gas turbine inlet temperature.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use at least one air compressor that supplies air to at least one high-temperature section of the gas turbine system for the purpose of cooling said high-temperature section and producing a higher-temperature air, as taught by Perkins et al., in the power generator of Jahnke et al., for the purpose of improving system performance by allowing significant increase in the gas turbine inlet temperature.

While Perkins et al. does not explicitly disclose said higher-temperature air being supplied to a heat recovery system, it would have been obvious to one having ordinary

Art Unit: 1764

skill in the art at the time the invention was made to use at least part of said higher-temperature air in a heat recovery system of Jahnke et al., as Jahnke et al. discloses utilizing hot gas streams available as a by-product of disclosed generator for the purpose of improving system economics (CI 1/58-63).

Regarding claim(s) 34, Jahnke et al. in view of Rice disclose(s) all of the claim limitations as set forth above. Additionally Rice teaches the power generator wherein:

a higher-temperature steam is produced after cooling said high-temperature section of the gas turbine system with said steam from said heat exchanger, said high-temperature steam is recovered from said at least one high-temperature section of the gas turbine system and supplied to a steam turbine in said steam turbine system (Abstract); and said at least one high-temperature section of the gas turbine is at least one of said gas turbine and a gas turbine combustor (Abstract).

Regarding claim(s) 42, Jahnke et al. in view of Rice disclose(s) all of the claim(s) limitations as set forth above. Additionally Rice teaches the power generator wherein:

a higher-temperature steam is produced after cooling said at least one high-temperature section of the gas turbine system with said steam from said heat exchanger (Abstract); and

said at least one high-temperature section of the gas turbine is at least one of said gas turbine and a gas turbine combustor (Abstract).

While Rice does not explicitly disclose higher-temperature steam being supplied to a heat recovery system, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use at least part of said higher-temperature

Art Unit: 1764

steam in said heat recovery system for the purpose of improving system economic by utilizing a higher-temperature steam which is available as a by-product of disclosed generator for production of steam which can be used in high pressure steam turbine.

Regarding claim(s) 47, Jahnke et al. in view of Rice disclose(s) all of the claim(s) limitations as set forth above. Additionally Jahnke et al. discloses the power generator wherein:

said higher temperature steam is supplied to said heat recovery system and to said steam turbine (C11/L58-C12/L10).

With respect to claim 49, Jahnke et al. in view of Rice disclose(s) all of the claim(s) limitations as set forth above, additionally, Rice discloses wherein at least one high-temperature section of said gas turbine includes at least one of;

a gas turbine nozzle blade (col. 7, lines 1-7); and

a gas turbine rotor and rotor blade (col. 7, lines 39-41).

Allowable Subject Matter

6. Claims 50 and 51 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: The prior art neither teaches nor suggests an IGCC apparatus which comprises all of the limitations claims, especially with regard to a means for providing high-pressure air only provides the high-pressure air to at least one high-temperature section of said gas turbine when the means for determining when steam is being generated by

Art Unit: 1764

the heat exchanger determines that no steam is being generated by the heat exchanger.

Response to Arguments

8. Applicant argues that the combination of Jahnke and Rice do not teach the instant invention since the steam generated in Jahnke is discharged to a combustor (steam jet).

The examiner respectfully disagrees with applicant. Though Jahnke teaches a different use for the steam generated by the gasification cycle than that of the instant invention, Rice has been cited to demonstrate another efficient use of steam generated by a power generation system to cool a gas turbine (col. 10, lines 56-59). It has been held by the examiner that it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of steam to cool a gas turbine of Rice in the device of Jahnke in order to make further use of the steam already generated in Jahnke (and recognize by Jahnke to be useful in further applications) to cool Jahnke's gas turbine.

Applicant argues that the gas turbine 20 of Rice is not cooled by steam, but rather a power turbine 34.

The examiner respectfully disagrees. It is stated in Rice, that gas that gas turbine 20 (which generally includes several elements including gas turbine 30) "is cooled by a combination of open cycle steam cooling and closed cycle steam cooling" (col. 10, lines 56-59).

Art Unit: 1764

Applicant argues that since Jahnke discloses wherein the steam is reheated in a heat exchanger to a higher temperature and not used to cool any device that one skilled in the art would not use the steam of Jahnke to cool any high temperature component of his system.

The examiner respectfully disagrees. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, one would be motivated to not reheat the steam of Jahnke in order to apply the teachings of Rice, as discussed in the rejection above.

In response to applicant's argument that the steam of Rice is extracted from a different portion of a power turbine system than that of Jahnke, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Applicant argues that the cited portion of Rice of column 11, lines 27-31 discloses that reheated steam is used to heat (not cool) a combustor and power turbine.

Art Unit: 1764

The examiner respectfully disagrees with applicant. The examiner finds that the statement:

Steam headers W and X receive 545 psia reheated steam from the gas generator and reheat combustor and power turbine, respectively, for discharge into intermediate pressure steam turbine 40.

The examiner finds that applicant has not properly interpreted the passage. The recited "reheat combustor" is element 32 and not a statement that a combustor is being reheated by the steam. Steam headers W and X are receiving the steam which has been heated by acting as a cooling medium in the gas generator, combustor and turbine.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Art Unit: 1764

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexa A. Doroshenk whose telephone number is 571-272-1446. The examiner can normally be reached on Monday - Thursday from 9:00 AM - 7:30 PM.

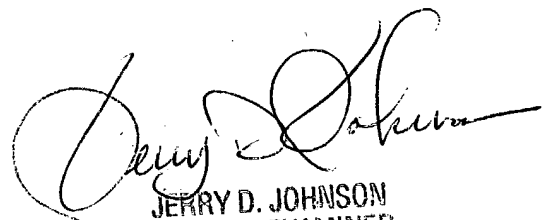
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AAD

AAD

February 9, 2004


JERRY D. JOHNSON
PRIMARY EXAMINER
GROUP 1100